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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

DERRINGTON, JAMES H

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 07/02/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

MF-4

Office Action Summary

Application No.

09/815,665

Applicant(s)

BARROW ET AL.

Examiner

James Derrington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6, drawn to a process, classified in class 65, subclass 134.4.

II. Claim 7, drawn to an apparatus, classified in class 65, subclass 336.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process of Group I can be practiced with a materially different apparatus such as float glass making furnace side mounted oxy-fuel burners and a downstream low momentum burner for dispersing foam.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Mark Hixon on June 25, 2002 a provisional election was made with oral traverse to prosecute the invention of Group I, claims 1-6.

Affirmation of this election must be made by applicant in replying to this Office action. Claim 7 stands withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al (6,237,369) taken alone or with Brown et al (5,632,795) or Moreau et al (5,655,464).

LeBlanc et al disclose the process of melting glass batches with a burner fired with fuel and oxygen. The 34 burner is operated to have a substantially laminar flow (Abstract) and the flame 30 can be adjusted to be "luminous" and impinges on the surface of glass and appears to be diffuse (See Col. 9, lines 37-38 and Fig. 4). Accordingly this burner has the claimed qualities of a flame which "diffuse, luminescent and impinges". In addition, Leblanc et al disclose that this burner 34 may be located downstream in a "conventional side fired oxygen-fuel" furnace. (See Col. 9, lines 43-67 and particularly Col. 10, lines 1-4). With this arrangement the downstream burner 34 has been found to reduce the foam (Col. 9, lines 58-61). Thus this reference shows or renders obvious the manipulative steps of claim 1. With regard to the claimed phrase "of

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producing flat glass”, no required step for producing “flat glass” is recited and accordingly no patentable distinction is seen over the teachings of LeBlanc taken alone.

However, Brown et al (Col. 4, lines 40-42) and Moreau et al (Col. 1, lines 8-9) are both cited as shown melting glass batches with oxy-fuel burners “for producing flat glass”. Additionally, Brown et al (Col. 3, line ff) and Moreau et al (Col. 2, line 62 ff) discuss the need to have reduced NO_x emissions. LeBlanc et al disclose that their disclosed process and burner provides for reduced formation of NO_x. Accordingly, it would have been obvious for one of ordinary skill in the art to use the method of LeBlanc et al for producing glass for the formation of flat glass products. The limitations of the dependent claims if not explicitly shown would be obvious to one of ordinary skill in the art in view of the combined teachings of the cited references.

8. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al (6,237,369) taken alone or with Brown et al (5,632,795) or Moreau et al (5,655,464) as applied to claims 1-6 above, and further in view of Philippe et al (5,975,886).

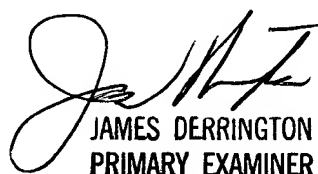
LeBlanc et al, Brown et al and Moreau et al have been discussed above. Philippe et al disclose an improved burner having separate oxygen and fuel outlets that produces a wide and luminous flame (See Figs 1a and 1b and Abstract). The burner (Col. 3, lines 61-65) has a wide, flat, stable, luminous flame with reduced NO_x. This improved burner can be used in glass furnaces (Col. 3, line 39 ff) and it would have been obvious to use this burner in the manner shown by LeBlanc et al in order to gain the benefits of this improved burner. The limitations of

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the dependent claims if not explicitly shown would be obvious to one of ordinary skill in the art in view of the combined teachings of the cited references.

9. Schwenninger is cited as showing that a bruner flame can be used to break up glass foam (See Col. 9, lines 31-47).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is (703) 308-3832.


JAMES DERRINGTON
PRIMARY EXAMINER
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jd
June 29, 2002